IN THE SPECIFICATION

Please replace the paragraph beginning at page 6, line 1, with the following rewritten paragraph:

Figures ~~8a~~ 8A and ~~8b~~ 8B are front views of the rotary connector 1 that illustrate the use of viewing window and U-shaped bend ~~20c~~ 20C to indicate a neutral position of the rotary connector, in accordance with one embodiment of the present invention;

Please replace the paragraph beginning at page 7, line 1, with the following rewritten paragraph:

Referring now to the drawings, Figure 1 is a perspective view of a rotary connector in accordance with one embodiment of the present invention, and Figure 2 is a partial cross-sectional view taken along line A-A of Figure 1. As seen in Figure 1, the rotary connector 1 includes a rotating case 10 and a stationary case 11. The rotating case 10 includes an inner cylinder shaft portion ~~10a~~ 10A and an upper flange ~~10b~~ 10B. The upper flange ~~10b~~ 10B includes a rotating junction ~~10c~~ 10C, which provides electrical connection of a cable (not shown in Figure 1) housed in the connector to an external electrical system. In the embodiment of Figure 1, the rotating junction ~~10c~~ 10C includes wires 12, however pins may also be used. The upper flange ~~10b~~ 10B of the rotating case 10 further includes a through hole ~~10d~~ 10D positioned at a predetermined radial position on the upper flange ~~10b~~ 10B.

Please replace the paragraph beginning at page 7, line 12, with the following rewritten paragraph:

As best seen in Figure 2, the stationary case 11 includes an outer cylinder wall ~~11a~~ 11A, an upper flange ~~11b~~ 11B and a lower flange ~~11c~~ 11C. The upper flange ~~11b~~ 11B is provided with a through hole ~~11d~~ 11D. The through hole ~~11d~~ 11D is positioned at substantially the same radial position as the through hole ~~10d~~ 10D so that these through holes overlap one another when rotated to the same angular position. Overlapping of the through holes ~~10d~~ 10D and ~~11d~~ 11D creates a window ~~1a~~ 1A that allows visual indication of a flexible flat cable within an annular space of the rotary connector 1 as will be further described below. Referring again to Figure 1, the stationary case 11 includes a plurality of mounting flanges ~~11e~~ 11E arranged at suitable positions on the outer cylinder wall ~~11a~~ 11A for fixedly mounting the stationary case 11 on an assembly such as a vehicle-body. Also arranged on the outer cylinder wall ~~11a~~ 11A of the case 11 is a stationary junction ~~11f~~ 11F, which provides electrical connection of the cable housed in the rotary connector 1 to an external electrical system. In the embodiment of Figure 1, the stationary junction ~~11f~~ 11F includes wires 13, however, pins may also be used.

Please replace the paragraph beginning at page 8, line 1, with the following rewritten paragraph:

Figure 3 is an exploded view of the rotary connector showing the interrelation of parts included in a rotary connector assembly according to one embodiment of the present invention. As seen in this figure, the rotary connector assembly includes a rotating case 310, a stationary case 311, a flexible flat cable 320 and a separable stationary flange ~~311c~~ 311C. The rotating case 310 includes a rotating junction ~~310c~~ 310D and the stationary case 311 includes a stationary junction ~~311f~~ 311F. As seen in Figure 3, the flexible flat cable 320

includes four separate flat cables bent to form U-shapes ~~320e~~ 320C. The stationary case 311 joins with the stationary flange ~~311e~~ 311C along the dashed assembly line in Figure 3 to form an integral unit defining an annular space that the flexible flat cable 320 is contained in. The rotating case 310 is then rotationally coupled to the stationary case 311. As with the embodiment of Figures 1 and 2, the rotating case 310 and the stationary case 311 include a rotating through hole ~~310e~~ 310D and a stationary through hole ~~311d~~ 311D respectively. The through hole ~~311d~~ 311D is positioned at substantially the same radial position as the through hole ~~310e~~ 310D so that they overlap one another when rotated to the same angular position. While not shown in Figure 3, in the final assembly of the rotary connector, one end of the flexible flat cable 320 is connected to the rotating junction ~~310e~~ 310D of the rotating case 310, and an opposing end of the cable 320 is connected to the stationary junction ~~311f~~ 311F of the stationary case 311.

Please replace the paragraph beginning at page 8, line 21, with the following rewritten paragraph:

Figure 4 is an illustration of a flexible flat cable assembly used with a rotational connector in accordance with one embodiment of the present invention. One end of the flexible flat cable 420 includes rotational junction ~~410d~~ 410D having male pins 412, while an opposing end of the flexible flat cable 420 includes stationary junction ~~411f~~ 411F having male wires or pins or wires 413. In the embodiment of Figure 4, the male pins or wires 412 and 413 are suitable for connecting the flexible flat cable 420 to female electrical connectors of external wires. As with the embodiment of Figure 3, the flexible flat cable 420 of Figure 4 includes four flat wires that are housed within the annular space of the rotary connector. However, it is understood that the number of flat wires in the cable assembly may be changed depending on the electrical requirements of the assembly that the flexible flat cable is used

with. Moreover, in one embodiment of the present invention, the rotary connector has a fixed number of flat wires, with a predetermined number of flat wires being electrically active based on the electrical requirements of the assembly, and remaining cables being "dummy cables" that act as spacers.

Please replace the paragraph beginning at page 9, line 11, with the following rewritten paragraph:

As seen in Figure 4, the flat wires of the flexible flat cable 420 are housed such that each wire has some of its length wrapped around the inner cylinder shaft portion 10a of the rotating case 10 shown in Figure 1, for example. Each wire of the flat cable 420 is then turned back upon itself to form a U-shape ~~420e~~ 420C so that the remainder of the flexible flat cable length is wound inside the outer cylinder wall 11a of the stationary case 11 in an opposite direction. The U-shape bend ~~420e~~ 420C of one of the flat wires of the flexible flat cable 420 acts as an indicator that the rotary cable is in a neutral position as will be further described below.

Please replace the paragraph beginning at page 9, line 20, with the following rewritten paragraph:

The flat cable of Figures 3 and 4 is a flexible belt-shaped transmission medium for transmitting electrical signals, optical signals, electric power, etc. As shown in Figure 5, for example, the cable 520 is an electrical transmission medium that includes a plurality of flat rectangular electrical conductors ~~520a~~ 520A, arranged parallel to one another. In the embodiment of Figure 5, an insulator ~~520b~~ 520B, such as a polyester film, covers the conductors ~~520a~~ 520A to electrically insulate them from one another. Figures 6 and 7 show alternative constructions of a flexible flat cable that may be used in accordance with the

present invention. As seen in Figure 6, a cable 620 is an electrical transmission medium that includes a plurality of electrical conductors ~~620a~~ 620A, having a circular cross section and arranged parallel to one another. An electrical insulation material ~~620b~~ 620B covers the conductors ~~620a~~ 620A. In Figure 7, a flat cable 720 is a light transmission medium in the form of a tape fiber that includes a plurality of optical fibers ~~720a~~ 720A for transmitting optical signals. A covering material ~~720b~~ 720B covers the fibers ~~720a~~ 720A and provides a flexibility to the cable. Still alternatively, the flat cable may be a combination of an electrical transmission medium and a light transmission medium, in which case the cable includes electrical conductors and optical fibers covered by an insulation material. In one embodiment of the present invention, a single conductor ribbon wire may be used for the flexible flat cable, as will be described with respect to Figure 10 below.

Please replace the paragraph beginning at page 10, line 15, with the following rewritten paragraph:

As noted above, viewing of the U-shaped bend of the flexible flat cable within the window provides an indication that the rotary connector is in a desired neutral position. Figures ~~8a~~ 8A and ~~8b~~ 8B are front views of a rotary connector 1 that illustrate the use of viewing window and the U-shaped bend to indicate a neutral position of the rotary connector, in accordance with one embodiment of the present invention. In Figures ~~8a~~ 8A and ~~8b~~ 8B, the rotary connector 801 is positioned such that the through hole of the rotating case overlaps the through hole of the stationary case to form viewing window ~~801a~~ 801A that allows viewing of the interior annular space of the rotary connector 801.

Please replace the paragraph beginning at page 10, line 24, with the following rewritten paragraph:

As seen in Figure ~~8a~~ 8A, there is no flat cable bend visible within the viewing window ~~801a~~ 801A, which indicates that the rotary connector 801 is not in its neutral position. That is, the rotary case is in a position relative to the stationary case, other than the neutral position. While Figure ~~8a~~ 8A shows no visibility of the flexible cable 820 in the window ~~1a~~ 1A, one of ordinary skill in the art would understand that a portion of the cable 20 other than the U-shaped bend ~~20e~~ 20C may be visible in the viewing window ~~801a~~ 801A. In such a situation an orientation of the cable 820 will make clear that the portion of the cable 820 in the window 801 is not the bend ~~820e~~ 820C, and therefore, the rotary connector is not in its neutral position. However, where the rotary case is rotated relative to the stationary case such that the U-shaped bend ~~820e~~ 820C is within the viewing window ~~801a~~ 801A, the rotary connector 801 is in the neutral position as shown in Figure ~~8b~~ 8B.

Please replace the paragraph beginning at page 11, line 10, with the following rewritten paragraph:

Thus, according to the present invention, the rotating case 10 is in a neutral position relative to the stationary case 11 when the through holes ~~10d~~ 10D and ~~11d~~ 11D are aligned to form viewing window ~~1a~~ 1A, and one of the U-shaped bends ~~20e~~ 20C of the cable 20 is visible within the viewing window ~~1a~~ 1A. In order for the alignment of the viewing window ~~1a~~ 1A and the cable bend ~~20e~~ 20C to correspond to the neutral position, the through holes ~~10d~~ 10D and ~~11d~~ 11D must be positioned in a predetermined position on the rotary connector, and the length of the flexible flat cable 20 must correspond to the positioning of the viewing window ~~1a~~ 1A as well as the rotational range (i.e. the maximum number of turns or angular rotation) of the rotary connector. That is, where the rotary connector 1 has a

rotational range of several turns, the viewing window will appear with each 360 degrees of rotation, but the length of the flexible flat cable 20 is selected such that a bend 20c will appear in the viewing window only when the connector is in the desired neutral position.

Please replace the paragraph beginning at page 11, line 24, with the following rewritten paragraph:

For example, in the embodiment of the present invention shown in Figure 3, the flexible flat cable 320 is 805 mm long and the viewing window formed by the through holes ~~210d~~ 310D and ~~311d~~ 311D is located at approximately 2 o'clock when referenced to a clock face, if viewed from the vehicle driver's position in the case of an automobile application. With this configuration, the rotary connector will have a rotational range of approximately +/- 2.5 turns and the cable bend ~~320e~~ 320C will appear in the viewing window at approximately 2.5 turns from each end of the functional rotational range. This identifies the functional center of the rotary connector and the neutral position. It is to be understood, however, that the present invention is not limited to this specific example, and the rotational range of the connector may be any number of turns with the desired neutral position being other than the functional center of the connector.

Please replace the paragraph beginning at page 13, line 4, with the following rewritten paragraph:

In addition, the calculation of cable lengths may account for the thickness of the cable. Referring to Figure 4, the distance from the outer circle of the cables to the stationary junction ~~411f~~ 411F and the distance from the inner circle to the rotating junction ~~410d~~ 410D are the "lengths to make bus bar". These distances can vary from design to design and cannot be formulated as with the diameters.

Please replace the paragraph beginning at page 13, line 9, with the following rewritten paragraph:

Centering of the rotary connector to a neutral position will be described with respect to the rotary connector 1 shown in Figure 1. Centering to the neutral position is preferably accomplished by turning the rotary case 10 in a clockwise direction. Rotation is complete when the rotary connector 1 has depleted the flat cable 20 windings along the inner wall 11a of the stationary case 11 and begins to pull at the junction ~~11f~~ 11F. The pulling of the flat cable 20, at the stationary junction ~~11f~~ 11F is readily discernable as the operating torque of the rotary connector 1 is very low (typically < 0.1 Nm) and the end of travel for the flat cable 20 feels much like the rotary connector 1 has been snagged. Once the end of rotational travel has been established, the rotating case 10 is to be counter-rotated (2.5-3.0 turns in a preferred embodiment) until the through hole ~~10d~~ 10D of the rotating case 10 aligns with the through hole ~~11d~~ 11D of the stationary case 11, creating a centering window ~~1a~~ 1A. When the U-shape turn ~~20e~~ 20C of the flat cable 20 appears in the centering window 1a the rotary connector 1 is properly centered within its functional rotational limits, i.e. its neutral position.

Please replace the paragraph beginning at page 16, line 8, with the following rewritten paragraph:

Figure 11 is a picture of a high current capable rotary connector having an integral blade fuse in accordance with one embodiment of the present invention. As seen in Figure 11, the rotary connector 1101 is shown without a cover to reveal the flexible flat cables housed within the annular space of the rotary connector 1101. The rotary connector 1101 includes a rotating case and a stationary case, combined for the purpose of housing flexible flat cable(s), similar to the rotary connectors previously described with respect to Figures 1

and 4. In the embodiment of Figure 11, the flexible flat cable 1120 includes four flat wires, two of which are single conductor ribbon wires (1103 visible in Figure 11) for providing input and output high current to the rotary connector 1101, with the two remaining ribbon wires being multiple conductor wires (1105 visible in Figure 11) for providing separate current sources to the rotary cable 1101. While the flexible flat cable 1120 of Figure 11 is shown to have U-shaped turns ~~1120c~~ 1120C, such a configuration is not necessary to obtaining the advantages of the overcurrent fuse provided integral to the rotary connector 1101. For example, the flexible flat cable 1120 may be provided as a spiral, as described for prior art cables in the Background of the Invention section above.